

condense on the substrate to build up a semiconducting layer, wherein the substrate is periodically protected from the heating element and/or the gas, present in the vessel, by means of a displaceable isolating shutter, and

wherein said resultant device has a substantially consistent gate voltage and has a saturation mobility in the range of about 0.001 to about 100 cm²/V.s.--

--33. (Previously presented) A device obtainable according to the process of claim 32 wherein said device has a saturation mobility in the range of about 0.001 to about 10 cm²/V.s.--

--34. (Previously presented) A device obtainable according to the process of claim 32 wherein said device has a saturation mobility in the range of about 0.1 to about 1.0 cm²/V.s.--

REMARKS

The last Official Action in the above-identified application has been carefully considered and this amendment has been presented to place this application in condition for allowance. Accordingly, reexamination and reconsideration of this application are respectfully requested.

By this amendment, claim 24 has been amended. Claims 22, 24 and 28-34 remain pending in this application.

In the Official Action, the Examiner has rejected claims 22 and 28-30 under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement. According to the Examiner, claim 22 recites "an electronic device" having a substantially consistent gate voltage and saturation mobility but the description only describes a transistor having the claimed properties and not "an electronic device" which need not include a transistor. The Examiner then states "to the extent Applicants are presently claiming devices other than transistor the same is not taught by the originally filed specification."

IN THE CLAIMS

The claims are now pending as follows:

1-21 (Cancelled)

--22. (Previously presented) An electronic device having a substantially consistent gate voltage and a saturation mobility μ , in the range of about 0.001 to about 100 cm²/V.s.--

23. (Cancelled)

--24. (Currently Amended) A device comprising a substantially exclusive polycrystalline Si:H or a polycrystalline and amorphous Si:H layer, said device having a substantially consistent gate voltage and a saturation mobility lying in the range of about 0.001 to about 500 cm²/V.s.--

25-27 (Cancelled)

--28. (Previously presented) The electronic device of claim 22 which has a saturation mobility in the range of about 0.001 to about 10 cm²/V.s.--

--29. (Previously presented) The electronic device of claim 22 which has a saturation mobility in the range of between about 0.1 to about 1.00 cm²/V.s.--

--30. (Previously presented) The electronic device of claim 22 which is a transistor.--

--31. (Previously presented) The device comprising a substantially exclusive polycrystalline Si:H or a polycrystalline and amorphous Si:H layer of claim 24 wherein said device has a saturation mobility lying in the range of about 0.001 to about 500 cm²/V.s.

--32. (Previously presented) A device obtainable according to a process for providing a semiconducting device comprising the steps of depositing a semiconducting layer onto a substrate situated in a vessel by means of heating gas to a predetermined, dissociation temperature so that the gas dissociates into fractions, whereby those fractions subsequently

condense on the substrate to build up a semiconducting layer, wherein the substrate is periodically protected from the heating element and/or the gas, present in the vessel, by means of a displaceable isolating shutter, and

wherein said resultant device has a substantially consistent gate voltage and has a saturation mobility in the range of about 0.001 to about 100 cm²/V.s.--

--33. (Previously presented) A device obtainable according to the process of claim 32 wherein said device has a saturation mobility in the range of about 0.001 to about 10 cm²/V.s.--

--34. (Previously presented) A device obtainable according to the process of claim 32 wherein said device has a saturation mobility in the range of about 0.1 to about 1.0 cm²/V.s.--

REMARKS

The last Official Action in the above-identified application has been carefully considered and this amendment has been presented to place this application in condition for allowance. Accordingly, reexamination and reconsideration of this application are respectfully requested.

By this amendment, claim 24 has been amended. Claims 22, 24 and 28-34 remain pending in this application.

In the Official Action, the Examiner has rejected claims 22 and 28-30 under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement. According to the Examiner, claim 22 recites "an electronic device" having a substantially consistent gate voltage and saturation mobility but the description only describes a transistor having the claimed properties and not "an electronic device" which need not include a transistor. The Examiner then states "to the extent Applicants are presently claiming devices other than transistor the same is not taught by the originally filed specification."

Applicants respectfully submit that page 2, lines 28-32 of the originally-filed specification provides a basis for an independent claims (such as claims 22 and 24) which is directed to an electronic device. The present invention is indeed intended for use in the devices mentioned on line 29. In addition, since a transistor is an electronic device and is described in the specification, on that basis alone, claiming "an electronic device" rather than "a transistor" is supported by the specification notwithstanding the other electronic devices recited on lines 28-32 of page 2 of the specification.

Based upon the foregoing, it is believed that the Examiner's rejection of claims 22, 24 and 28-30 based upon 35 U.S.C. §112, first paragraph, has been overcome by the present remarks and withdrawal thereof is respectfully requested.

The Examiner has also rejected claim 24 for containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, has possession of the claimed invention. According to the Examiner, claim 24 recites a saturation mobility lying in the range of about 0.001 to about 1000 $\text{cm}^2/\text{V.s.}$ whereas the specification as originally-filed only describes the saturation mobility up to 500 $\text{cm}^2/\text{V.s.}$ By this amendment, claim 24 has been amended to recite that the saturation mobility is up to 500 $\text{cm}^2/\text{V.s.}$ Based upon the foregoing, it is believed that the Examiner's rejection of claim 24 in this regard should be withdrawn.

Claims 24 and 31 have been rejected under 35 U.S.C. §112, as being indefinite. According to the Examiner, the phrase "substantially exclusive" render the claim indefinite. Applicants respectfully submit that the phrase "substantially exclusive" is not indefinite. Claims 24 and 31 are intended to cover a layer that may include traces of other materials as is described in the originally-filed specification. It is therefore believed that the Examiner's rejection of

claims 24 and 31 based upon 35 U.S.C. §112, second paragraph, has been overcome by the present amendment and remarks and withdrawal thereof is respectfully requested.

In the Official Action, claims 22, 24 and 28-32 have been rejected under 35 U.S.C. §103(a) as being unpatentable over H. Meiling et al. "Stability of Hot-wire Deposited amorphous-silicon thin-film transistors" Appl. Phys. Lett. Vol. 69 No. 8 August 1996 pages 1062 to 1064 ("Meiling") and Kikuo et al., "Inverse-staggered Polycrystalline silicon thin-film transistors fabricated by Excimer Laser irradiation". Electronics and Communications in Japan, vol., 76, No. 12, December 1999 ("Kikuo"). Applicants respectfully submit that the Meiling article is not available as "prior art" because it is not a written publication "by another" published before the inventors made their invention (clearly, the inventors made their invention at least as early as the date of publication of their article); and it is not a written publication published more than one year prior to the effective filing date of the present application (which is the Dutch application filing date of December 23, 1996). Since the Meiling article is not "available prior art", the Examiner's rejection of claims 22, 24 and 28-32 based in part upon the Meiling article cannot stand. In view thereof, it is believed that the Examiner's rejection of claims 22, 24 and 28-32 based upon 35 U.S.C. §103(a) has been overcome by the present amendment and remarks and withdrawal thereof is respectfully requested.

In view of the foregoing amendment and remarks, it is respectfully submitted that the application as now presented is in condition for allowance. Early and favorable reconsideration of the application are respectfully requested.

PATENT
452080-2010.2

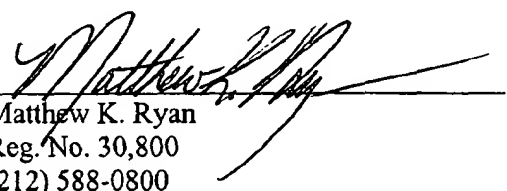
No additional fee is deemed to be required for the filing of this amendment, but if such is, please charge it for this application to Deposit Account No. 50-0320.

A Notice of Allowance is earnestly solicited.

Respectfully submitted,

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